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**REMARKS**

Claims 1-27 are in the case. Claims 1-20 are withdrawn. Claims 21-27 are under presently consideration in the case.

Claim 21 has been amended to more clearly define Applicants' invention.

Claims 25-26 have been canceled.

All claims remain finally rejected under 35 USC § 112, 103 and the judicially created doctrine of double patenting.

No new matter has been added.

***Status of the Case***

The Amendment filed 10.25.2006 was not entered as it raised new issues that would require an additional search and did place the case in condition for allowance. The following arguments are responsive to the action filed 6.5.2006 as well as the advisory action filed 7.11.2006

***Claim Rejections – 35 USC § 112, first paragraph***

Claims 25 and 26 are rejected under 35 USC § 112 as failing to comply with the written description requirement. Specifically the examiner finds no basis in the specification for the limitation in claim 25 that the carbon nanotube (CNT) lacks a member of a binding pair. The examiner has reviewed applicants' arguments in response to this rejection filed 23 March 2006 however they have been found unpersuasive.

Claims 25-26 have been canceled. In view of the cancellation of these claims applicants submit this rejection is moot.

***Claim Rejections – 35 USC § 112, second paragraph***

Claims 25-26 are rejected under 35 USC § 112, second paragraph for indefiniteness. In particular the examiner finds the use of the phase "provided however that the CNT lacks a member of a binding pair" unclear.

Applicants submit that this rejection is moot in view of the cancellation of claims 25-26.

***Claim Rejections – 35 USC § 103***

Claims 21-24 and 27 are rejected under 35 USC § 103(a) as being unpatentable over Guo et al (Adv. Mat., 1998 10(9): 701, hereinafter "Guo" in view of O'connell et al (Chem.Phys.Lett 342, 265-271) herein after "O'connell".

The teachings of Guo and O'connell have been given previously.

The Examiner maintains her rejections for reasons of record.

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Applicants arguments have been considered however are found unpersuasive principally because Applicants based their arguments on the differences between the binding properties of single stranded nucleic acids vs double stranded nucleic acids however the claims are not limited to single stranded nucleic acids.

The claims have now been amended to recite the limitation that the nucleic acid is single stranded. For reasons of record Applicants submit that the claims are not obvious over the cited art since the art does not teach all the limitations of the invention as claimed.

The Advisory action of 7.11.2006 notes that the use of the open ended term "comprising" in the amended claims does not define the claims over the prior art. The Claims have been further amended to recite the limitation that the carbon nanotube - nucleic acid complex "consists essentially of" a single walled carbon nanotube bound to a single stranded nucleic acid molecule, and as such is not open ended and defines the claim over the prior art.

Claims 21-25 and 27 are rejected under 35 USC § 103(a) as being unpatentable over Tsang et al (Angew, Chem Int., 1997, 36 (20):2198-2200), hereinafter "Tsang", in view of O'connell.

The teaching of O'connell and Tsang have been given previously.

The Examiner maintains her rejections for reasons of record.

Applicants arguments have been considered however are found unpersuasive principally because Applicants based their arguments on the differences between the binding properties of single stranded nucleic acids vs double stranded nucleic acids.. As noted above the claims as amended recite the limitation that the nucleic acid is single stranded. Accordingly, for reasons of record Applicants submit that the claims are not obvious over the cited art.

Claims 21-27 are rejected under 35 USC § 103(a) as being unpatentable over Massey et a (US 5866434), hereinafter "434", in view of O'connell.

The teaching of O'connell and Massey have been given previously.

The Examiner maintains her rejections for reasons of record.

Applicants arguments have been considered however are found unpersuasive for the reasons stated above. As noted above the claims as amended recite the limitation that the nucleic acid is single stranded. Accordingly, for reasons of record Applicants submit that the claims are not obvious over the cited art.

#### ***Double Patenting***

Claims 21-23 and 25-27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 14 and 19 of co-

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pending application USSN 10/716347. The examiner maintains the view that although the claims are not identical that they are not patentable distinct.

Applicants maintain the position that the present claims are drawn to a single complex where as the conflicting claims are drawn to a population of complexes and are therefore patentably distinct.

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In view of the foregoing arguments Applicants respectfully request reconsideration of the claims as amended and removal of all rejections.

Should there be any fee due in connection with the filing of this Response and Amendment please charge such fee to Deposit Account No. 04-1928 (E. I. du Pont de Nemours and Company).

Respectfully submitted,



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